

-2-

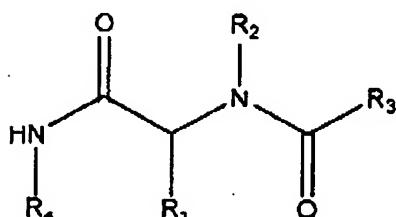
Amendments to the Claims

Please cancel Claims 5, 6 and 18, amend Claims 1, 15, 17, 19 and 20, and add new Claims 21 to 23. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

What is Claimed is:

1. (Currently amended) A method of inhibiting rejection of a transplanted organ, tissue or cell in a recipient mammal, the method comprising the step of administering to the recipient mammal an effective amount of an immunosuppressive agent anti-CD40L monoclonal antibody or rapamycin and an effective amount of a compound represented by the following structural formula:



or a physiological salt thereof, wherein:

R<sub>1</sub> is a substituted or unsubstituted aryl group, a substituted or unsubstituted aralkyl group or a substituted or unsubstituted alkyl group;

R<sub>2</sub> is an optionally substituted aralkyl group or an alkyl group substituted with -NR<sub>5</sub>R<sub>6</sub>;

R<sub>3</sub> is a substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group;

R<sub>4</sub> a substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group; and

-3-

$R_5$  and  $R_6$  are independently selected from a substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group or  $R_5$  and  $R_6$  taken together with the nitrogen to which they are attached are a non-aromatic heterocyclic group;

wherein each substituted aryl group, substituted alkyl group or substituted aralkyl group are independently optionally substituted at a carbon atom with -OH, -Br, -Cl, -I, -F, R, -CH<sub>2</sub>R, -OCH<sub>2</sub>R, -CH<sub>2</sub>OC(O)R, -OR, -O-COR, -COR, -CN, -NO<sub>2</sub>, -COOH, -SO<sub>3</sub>H, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -COOR, -CHO, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -NHCOR, -NRCOR, -NHCONH<sub>2</sub>, -NHCONRH, -NHCON(R)<sub>2</sub>, -NRCONH<sub>2</sub>, -NRCONRH, -NRCON(R)<sub>2</sub>, -C(=NH)-NH<sub>2</sub>, -C(=NH)-NHR, -C(=NH)-N(R)<sub>2</sub>, -C(=NR)-NH<sub>2</sub>, -C(=NR)-NHR, -C(=NR)-N(R)<sub>2</sub>, -NH-C(=NH)-NH<sub>2</sub>, -NH-C(=NH)-NHR, -NH-C(=NH)-N(R)<sub>2</sub>, -NH-C(=NR)-NH<sub>2</sub>, -NH-C(=NR)-NHR, -NH-C(=NR)-N(R)<sub>2</sub>, -NRH-C(=NH)-NH<sub>2</sub>, -NR-C(=NH)-NHR, -NR-C(=NH)-N(R)<sub>2</sub>, -NR-C(=NR)-NH<sub>2</sub>, -NR-C(=NR)-NHR, -NR-C(=NR)-N(R)<sub>2</sub>, -SO<sub>2</sub>NH<sub>2</sub>, -SO<sub>2</sub>NHR, -SO<sub>2</sub>NR<sub>2</sub>, -SH, -SO<sub>3</sub>R and -NH-C(=NH)-NH<sub>2</sub>;

wherein each substituted aryl group or substituted aralkyl group are independently optionally substituted at a nitrogen atom with -R', -N(R')<sub>2</sub>, -C(O)R', -CO<sub>2</sub>R', -C(O)C(O)R', -C(O)CH<sub>2</sub>C(O)R', -SO<sub>2</sub>R', -SO<sub>2</sub>N(R')<sub>2</sub>, -C(=S)N(R')<sub>2</sub>, -C(=NH)-N(R'), and -NR'SO<sub>2</sub>R';

R' is hydrogen, an alkyl group, phenyl, -O(Ph), CH<sub>2</sub>(Ph), heteroaryl or non-aromatic heterocyclic ring;

each R is independently an alkyl, benzyl, or aryl group; or -N(R)<sub>2</sub>, taken together, can also form a non-aromatic heterocyclic group; and

k is 0, 1 or 2.

2. (Original) The method of Claim 1 wherein the transplanted organ, tissue or cell is a transplanted heart, kidney, lung, liver, pancreas, skin or bone marrow.
3. (Original) The method of Claim 1 wherein the mammal is the recipient of a transplanted stem cell(s).
4. (Original) The method of Claim 1 wherein the transplanted organ, tissue or cell is xenogenic or bio-engineered.

-4-

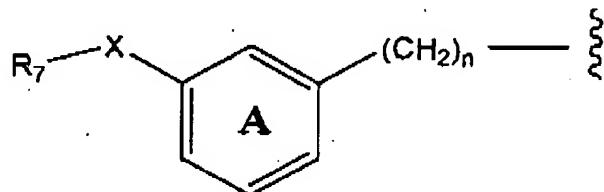
5. (Cancelled)
6. (Cancelled)
7. (Original) The method of Claim 1 wherein R<sub>2</sub> is an optionally substituted heteroaralkyl group or an alkyl group substituted with -NR<sub>5</sub>R<sub>6</sub>.
8. (Original) The method of Claim 7 wherein:
  - a) R<sub>1</sub> is an optionally substituted aryl group or an optionally substituted C<sub>1</sub>-C<sub>4</sub> aralkyl group;
  - b) R<sub>3</sub> is an optionally substituted aryl group or an optionally substituted C<sub>1</sub>-C<sub>4</sub> aralkyl group; and
  - c) R<sub>4</sub> is an optionally substituted aryl group, an optionally substituted cycloalkyl group, an optionally substituted C<sub>1</sub>-C<sub>4</sub> aralkyl group or an optionally substituted C<sub>1</sub>-C<sub>4</sub> cycloalkylalkyl group.
9. (Original) The method of Claim 7 wherein:
  - a) R<sub>1</sub> is an optionally substituted phenyl group or an optionally substituted phenyl-C<sub>1</sub>-C<sub>4</sub> alkyl group;
  - b) R<sub>3</sub> a substituted or unsubstituted phenyl, phenyl-C<sub>1</sub>-C<sub>4</sub>-alkyl, diphenyl-C<sub>1</sub>-C<sub>4</sub>-alkyl, pyrazolyl, pyrazolyl-C<sub>1</sub>-C<sub>4</sub>-alkyl, indolyl, indolyl-C<sub>1</sub>-C<sub>4</sub>-alkyl, thiienylphenyl, thiienylphenyl-C<sub>1</sub>-C<sub>4</sub>-alkyl, furanylphenyl, furanylphenyl-C<sub>1</sub>-C<sub>4</sub>-alkyl, fluorenlyl, fluorenlyl-C<sub>1</sub>-C<sub>4</sub>-alkyl, naphthyl, naphthyl-C<sub>1</sub>-C<sub>4</sub>-alkyl, quinoxalinyl, quinoxalinyl-C<sub>1</sub>-C<sub>4</sub>-alkyl, an optionally substituted quinazolinyl, an optionally substituted quinazolinyl-C<sub>1</sub>-C<sub>4</sub>-alkyl, pyrrolyl, pyrrolyl-C<sub>1</sub>-C<sub>4</sub>-alkyl, thiienyl, thiienyl-C<sub>1</sub>-C<sub>4</sub>-alkyl, furanyl or furanyl-C<sub>1</sub>-C<sub>4</sub>-alkyl; and
  - c) R<sub>4</sub> is an optionally substituted phenyl group, an optionally substituted phenyl-C<sub>1</sub>-C<sub>4</sub>-alkyl group, an optionally substituted diphenyl-C<sub>1</sub>-C<sub>4</sub>-alkyl group, an optionally substituted C<sub>1</sub>-C<sub>4</sub>-cycloalkyl-C<sub>1</sub>-C<sub>4</sub>-alkyl group or an optionally substituted di-(C<sub>1</sub>-C<sub>4</sub>-cycloalkyl)-C<sub>1</sub>-C<sub>4</sub>-alkyl group.

10. (Original) The method of Claim 9 wherein R<sub>2</sub> is an optionally substituted imadazolyl-C<sub>1</sub>-C<sub>4</sub>-alkyl group or a C<sub>1</sub>-C<sub>4</sub> alkyl group substituted with -NR<sub>3</sub>R<sub>6</sub>.

11. (Original) The method of Claim 10 wherein:

R<sub>1</sub> is a phenyl group or phenyl-C<sub>1</sub>-C<sub>4</sub> alkyl group each optionally substituted with R, -CH<sub>2</sub>R, -OCH<sub>2</sub>R, -CH<sub>2</sub>OC(O)R, -OH, halogen, -OR, -O-COR, -COR, -CN, -NO<sub>2</sub>, -COOH, -SO<sub>3</sub>H, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -COOR, -CHO, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -NHCOR, -NRCOR, -NHCONH<sub>2</sub>, -NHCONRH, -NHCON(R)<sub>2</sub>, -NRCONH<sub>2</sub>, -NRCONRH, -NRCON(R)<sub>2</sub>, -C(=NH)-NH<sub>2</sub>, -C(=NH)-NHR, -C(=NH)-N(R)<sub>2</sub>, -C(=NR)-NH<sub>2</sub>, -C(=NR)-NHR, -C(=NR)-N(R)<sub>2</sub>, -NH-C(=NH)-NH<sub>2</sub>, -NH-C(=NH)-NHR, -NH-C(=NR)-NH<sub>2</sub>, -NH-C(=NR)-N(R)<sub>2</sub>, -NRH-C(=NH)-NH<sub>2</sub>, -NR-C(=NH)-NHR, -NR-C(=NH)-N(R)<sub>2</sub>, -NR-C(=NR)-NH<sub>2</sub>, -NR-C(=NR)-NHR, -NR-C(=NR)-N(R)<sub>2</sub>, -SO<sub>2</sub>NH<sub>2</sub>, -SO<sub>2</sub>NHR, -SO<sub>2</sub>N(R)<sub>2</sub>, -SH or -SokR;

R<sub>3</sub> is represented by the following structural formula:



R<sub>4</sub> is 2,2-diphenylethyl, 2-phenylethyl, benzyl, diphenylmethyl, 1,2-diphenylethyl, 3,3-diphenylpropyl, benzyl, or 2-pyridylethyl, each optionally substituted with -OH, halogen, R, -CH<sub>2</sub>R, -OCH<sub>2</sub>R, -CH<sub>2</sub>OC(O)R, -OR, -O-COR, -COR, -CN, -NO<sub>2</sub>, -COOH, -SO<sub>3</sub>H, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -COOR, -CHO, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -NHCOR, -NRCOR, -NHCONH<sub>2</sub>, -NHCONRH, -NHCON(R)<sub>2</sub>, -NRCONH<sub>2</sub>, -NRCONRH, -NRCON(R)<sub>2</sub>, -C(=NH)-NH<sub>2</sub>, -C(=NH)-NHR, -C(=NH)-N(R)<sub>2</sub>, -C(=NR)-NH<sub>2</sub>, -C(=NR)-NHR, -C(=NR)-N(R)<sub>2</sub>, -NH-C(=NH)-NH<sub>2</sub>, -NH-C(=NH)-NHR, -NH-C(=NR)-NH<sub>2</sub>, -NH-C(=NR)-N(R)<sub>2</sub>, -NRH-C(=NH)-NH<sub>2</sub>, -NR-C(=NH)-NHR, -NR-C(=NH)-N(R)<sub>2</sub>, -NR-C(=NR)-NH<sub>2</sub>, -NR-C(=NR)-NHR, -NR-C(=NR)-N(R)<sub>2</sub>, -SO<sub>2</sub>NH<sub>2</sub>, -SO<sub>2</sub>NHR, -SO<sub>2</sub>N(R)<sub>2</sub>, -SH or -SokR;

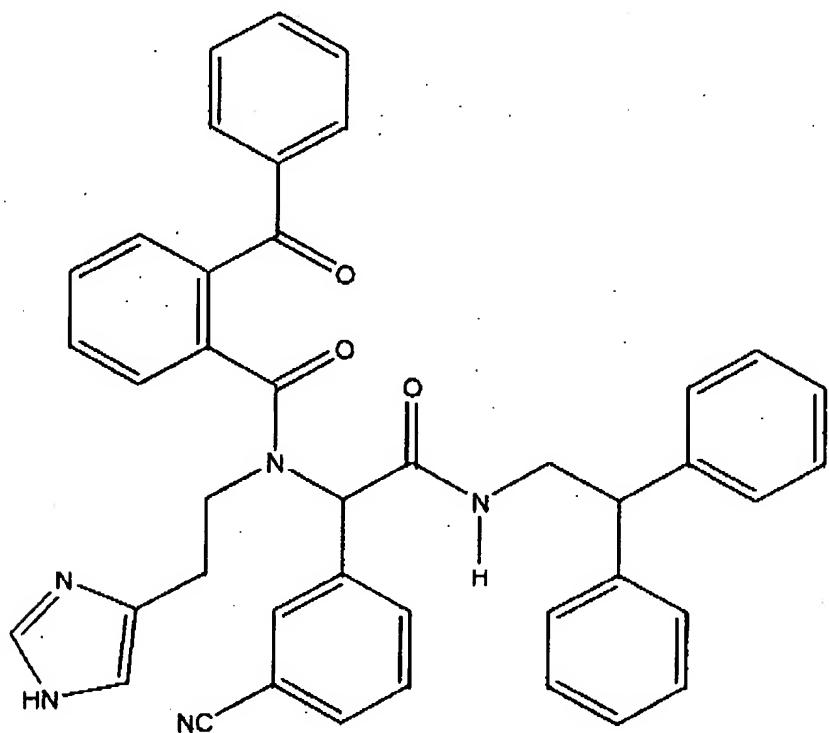
Ring A substituted or unsubstituted; R<sub>7</sub> is an optionally substituted phenyl, furanyl, thiienyl or pyridyl group; n is an integer from 1-4; and X is a bond, CH<sub>2</sub>, OCH<sub>2</sub>, CH<sub>2</sub>OC(O), CO, OC(O), C(O)O, O, S, SO or SO<sub>2</sub>;

each R is independently C<sub>1</sub>-C<sub>4</sub> alkyl or phenyl optionally substituted with amino, alkylamino, dialkylamino, aminocarbonyl, halogen, alkyl, alkylaminocarbonyl, dialkylaminocarbonyloxy, alkoxy, nitro, cyano, carboxy, alkoxycarbonyl, alkylcarbonyl, hydroxy, haloalkoxy, or haloalkyl; and

k is zero, one or two.

12. (Original) The method of Claim 11 wherein R<sub>1</sub> is a phenyl group or phenyl-C<sub>1</sub>-C<sub>2</sub> alkyl group, each optionally substituted with C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, halogen, CN, C<sub>1</sub>-C<sub>4</sub>-alkylthiol, C<sub>1</sub>-C<sub>4</sub>-haloalkyl or phenoxy; R<sub>4</sub> is 2,2-diphenylethyl, 2-phenylethyl, benzyl, diphenylmethyl, 1,2-diphenylethyl, 3,3-diphenylpropyl, benzyl, or 2-pyridylethyl, each optionally substituted with C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, halogen, CN, C<sub>1</sub>-C<sub>4</sub>-alkylthiol, C<sub>1</sub>-C<sub>4</sub>-haloalkyl or phenoxy; R<sub>7</sub> is an optionally substituted phenyl group; n is 1; and X is CO.
13. (Original) The method of Claim 12 wherein Ring A is unsubstituted and R<sub>7</sub> is a phenyl group optionally substituted with R, -CH<sub>2</sub>R, -OCH<sub>2</sub>R, -CH<sub>2</sub>OC(O)R, -OH, halogen, -OR, -O-COR, -COR, -CN, -NO<sub>2</sub>, -COOH, -SO<sub>2</sub>H, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -COOR, -CHO, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -NHCOR, -NRCOR, -NHCONH<sub>2</sub>, -NHCONRH, -NHCON(R)<sub>2</sub>, -NRCONH<sub>2</sub>, -NRCONRH, -NRCON(R)<sub>2</sub>, -C(=NH)-NH<sub>2</sub>, -C(=NH)-NHR, -C(=NH)-N(R)<sub>2</sub>, -C(=NR)-NH<sub>2</sub>, -C(=NR)-NHR, -C(=NR)-N(R)<sub>2</sub>, -NH-C(=NH)-NH<sub>2</sub>, -NH-C(=NH)-N(R)<sub>2</sub>, -NH-C(=NR)-NH<sub>2</sub>, -NH-C(=NR)-NHR, -NH-C(=NR)-N(R)<sub>2</sub>, -NRH-C(=NH)-NH<sub>2</sub>, -NR-C(=NH)-NHR, -NR-C(=NH)-N(R)<sub>2</sub>, -NR-C(=NR)-NH<sub>2</sub>, -NR-C(=NR)-NHR, -NRC(=NR)-N(R)<sub>2</sub>, -SO<sub>2</sub>NH<sub>2</sub>, -SO<sub>2</sub>NHR, -SO<sub>2</sub>N(R)<sub>2</sub>, -SH or -SO<sub>2</sub>R.
14. (Original) The method of Claim 13 wherein R<sub>7</sub> is a phenyl group; and R<sub>2</sub> is 2-(imidazo-4-yl)ethyl.

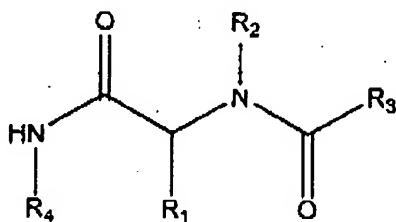
15. (Currently amended) A method of inhibiting rejection of a transplanted organ, tissue or cell in a recipient mammal, the method comprising the step of administering to the recipient mammal an effective amount of [[an]] anti CD40L monoclonal antibody or rapamycin and an effective amount of a compound represented by the following structural formula:



or a pharmaceutically acceptable salt of the compound.

16. (Original) The method of Claim 15 wherein the transplanted organ, tissue or cell is a transplanted heart, kidney, lung, liver, pancreas, skin or bone marrow.

17. (Currently amended) A composition comprising ~~an immuno-suppressive agent anti-CD40L monoclonal antibody or rapamycin~~ and a compound represented by the following structural formula:



or a physiological salt thereof, wherein:

R<sub>1</sub> is a substituted or unsubstituted aryl group or a substituted or unsubstituted alkyl group;

R<sub>2</sub> is an optionally substituted aralkyl group or an alkyl group substituted with -NR<sub>5</sub>R<sub>6</sub>;

R<sub>3</sub> is a substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group;

R<sub>4</sub> a substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group; and

R<sub>5</sub> and R<sub>6</sub> are independently selected from a substituted or unsubstituted alkyl group or a substituted or unsubstituted aryl group or R<sub>5</sub> and R<sub>6</sub> taken together with the nitrogen to which they are attached are a non-aromatic heterocyclic group;

wherein each substituted aryl group or substituted alkyl group are independently optionally substituted at a carbon atom with -OH, -Br, -Cl, -I, -F, R, -CH<sub>2</sub>R, -OCH<sub>2</sub>R, -CH<sub>2</sub>OC(O)R, -OR, -O-COR, -COR, -CN, -NO<sub>2</sub>, -COOH, -SO<sub>3</sub>H, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -COOR, -CHO, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -NHCOR, -NRCOR, -NHCONH<sub>2</sub>, -NHCONRH, -NHCON(R)<sub>2</sub>, -NRCONH<sub>2</sub>, -NRCONRH, -NRCON(R)<sub>2</sub>, -C(=NH)-NH<sub>2</sub>, -C(=NH)-NHR, -C(=NH)-N(R)<sub>2</sub>, -C(=NR)-NH<sub>2</sub>, -C(=NR)-NHR, -C(=NR)-N(R)<sub>2</sub>, -NH-C(=NH)-NH<sub>2</sub>, -NH-C(=NH)-NHR, -NH-C(=NH)-N(R)<sub>2</sub>, -NH-C(=NR)-NH<sub>2</sub>, -NH-C(=NR)-NHR, -NH-C(=NR)-N(R)<sub>2</sub>, -NRH-C(=NH)-NH<sub>2</sub>, -NR-C(=NH)-NHR, -NR-

-9-

$\text{C}(\text{=NH})\text{-N}(\text{R})_2$ ,  $-\text{NR-C}(\text{=NR})\text{-NH}_2$ ,  $-\text{NR-C}(\text{=NR})\text{-NHR}$ ,  $-\text{NR-C}(\text{=NR})\text{-N}(\text{R})_2$ ,  $-\text{SO}_2\text{NH}_2$ ,  
 $-\text{SO}_2\text{NHR}$ ,  $-\text{SO}_2\text{NR}_2$ ,  $-\text{SH}$ ,  $-\text{SO}_k\text{R}$  and  $-\text{NH-C}(\text{=NH})\text{-NH}_2$ ;

wherein each substituted aryl group is optionally independently substituted at a nitrogen atom with  $-\text{R}'$ ,  $-\text{N}(\text{R}')_2$ ,  $-\text{C}(\text{O})\text{R}'$ ,  $-\text{CO}_2\text{R}'$ ,  $-\text{C}(\text{O})\text{C}(\text{O})\text{R}'$ ,  $-\text{C}(\text{O})\text{CH}_2\text{C}(\text{O})\text{R}'$ ,  
 $-\text{SO}_2\text{R}'$ ,  $-\text{SO}_2\text{N}(\text{R}')_2$ ,  $-\text{C}(\text{=S})\text{N}(\text{R}')_2$ ,  $-\text{C}(\text{=NH})\text{-N}(\text{R}')_2$ , and  $-\text{NR}'\text{SO}_2\text{R}'$ ;

$\text{R}'$  is hydrogen, an alkyl group, phenyl,  $-\text{O}(\text{Ph})$ ,  $\text{CH}_2(\text{Ph})$ , heteroaryl or non-aromatic heterocyclic ring;

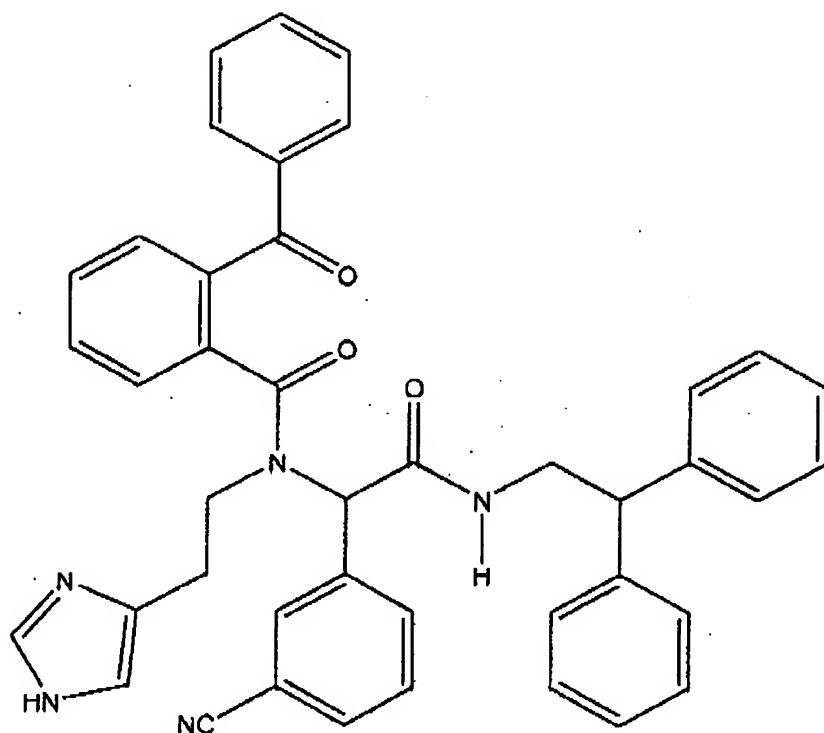
each  $\text{R}$  is independently an alkyl, benzyl, or aryl group; or  $-\text{N}(\text{R})_2$ , taken together, can also form a non-aromatic heterocyclic group; and

$\text{k}$  is 0, 1 or 2.

18. (Cancelled)

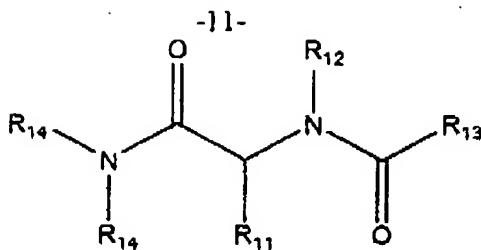
-10-

19. (Currently amended) A composition comprising [[an]] anti CD40L monoclonal antibody or rapamycin and a compound represented by the following structural formula:



or a pharmaceutically acceptable salt of the compound.

20. (Currently amended) A method of inhibiting rejection of a transplanted organ, tissue or cell in a recipient mammal, the method comprising the step of administering to the recipient mammal an effective amount of an immunosuppressive agent anti-CD40L monoclonal antibody or rapamycin and an effective amount of a compound represented by the following structural formula:



R<sub>11</sub> is -H, a substituted or unsubstituted aryl, a substituted or unsubstituted aralkyl, a substituted or unsubstituted heteroaryl or a substituted or unsubstituted heteroaralkyl;

R<sub>12</sub> is alkyl substituted with NR<sub>15</sub>R<sub>16</sub>, a substituted or unsubstituted aryl, a substituted or unsubstituted heteroaralkyl, or a substituted or unsubstituted heterocycloalkylalkyl;

R<sub>13</sub> is a substituted or unsubstituted alkyl, a substituted or unsubstituted aryl, a substituted or unsubstituted aralkyl, a substituted or unsubstituted cycloalkylalkyl, a substituted or unsubstituted heteroaryl, a substituted or unsubstituted heteroaralkyl, a substituted or unsubstituted benzophenonyl, or a substituted or unsubstituted cycloalkylalkyl; and

each R<sub>14</sub> is independently, -H, a substituted or unsubstituted alkyl, a substituted or unsubstituted aryl, substituted or unsubstituted aralkyl or a substituted or unsubstituted heteroaralkyl;

R<sub>15</sub> and R<sub>16</sub> are independently selected from H, a substituted or unsubstituted alkyl, a substituted or unsubstituted cycloalkyl, a substituted or unsubstituted aryl or unsubstituted aralkyl or R<sub>15</sub> and R<sub>16</sub> together with the nitrogen to which they are attached are a heterocycloalkyl,

wherein each substituted aryl group, substituted alkyl group, substituted heteroaralkyl, substituted heterocycloalkylalkyl, substituted cycloalkylalkyl, substituted benzophenonyl, substituted cycloalkyl, heterocycloalkyl or substituted aralkyl group are independently optionally substituted at a carbon atom with -OH, -Br, -Cl, -I, -F, R, -CH<sub>2</sub>R, -OCH<sub>2</sub>R, -CH<sub>2</sub>OC(O)R, -OR, -O-COR, -COR, -CN, -NO<sub>2</sub>, -COOH, -SO<sub>3</sub>H, -NH<sub>2</sub>, -NHR, -N(R)<sub>2</sub>, -COOR, -CHO, -CONH<sub>2</sub>, -CONHR, -CON(R)<sub>2</sub>, -NHCOR, -NRCOR, -NHCONH<sub>2</sub>, -NHCONRH, -NHCON(R)<sub>2</sub>, -NRCONH<sub>2</sub>, -NRCONRH, -NRCON(R)<sub>2</sub>, -C(=NH)-NH<sub>2</sub>, -C(=NH)-NHR, -C(=NH)-N(R)<sub>2</sub>, -C(=NR)-NII<sub>2</sub>, -C(=NR)-NHR,

-12-

-C(=NR)-N(R)<sub>2</sub>, -NH-C(=NH)-NH<sub>2</sub>, -NH-C(=NH)-NHR, -NH-C(=NH)-N(R)<sub>2</sub>,  
-NH-C(=NR)-NH<sub>2</sub>, -NH-C(=NR)-NHR, -NH-C(=NR)-N(R)<sub>2</sub>, -NRH-C(=NH)-NH<sub>2</sub>,  
-NR-C(=NH)-NHR, -NR-C(=NH)-N(R)<sub>2</sub>, -NR-C(=NR)-NH<sub>2</sub>, -NR-C(=NR)-NHR, -NR-C(=NR)-N(R)<sub>2</sub>,  
-SO<sub>2</sub>NH<sub>2</sub>, -SO<sub>2</sub>NHR, -SO<sub>2</sub>NR<sub>2</sub>, -SH, -SO<sub>k</sub>R and -NH-C(=NH)-NH<sub>2</sub>;

wherein each substituted aryl group, substituted heteroaralkyl, substituted heterocycloalkylalkyl, substituted cycloalkylalkyl, heterocycloalkyl or substituted aralkyl group are independently optionally substituted at a nitrogen atom with -R', -N(R')<sub>2</sub>,  
-C(O)R', -CO<sub>2</sub>R', -C(O)C(O)R', -C(O)CH<sub>2</sub>C(O)R', -SO<sub>2</sub>R', -SO<sub>2</sub>N(R')<sub>2</sub>, -C(=S)N(R')<sub>2</sub>,  
-C(=NH)-N(R')<sub>2</sub>, and -NR'SO<sub>2</sub>R';

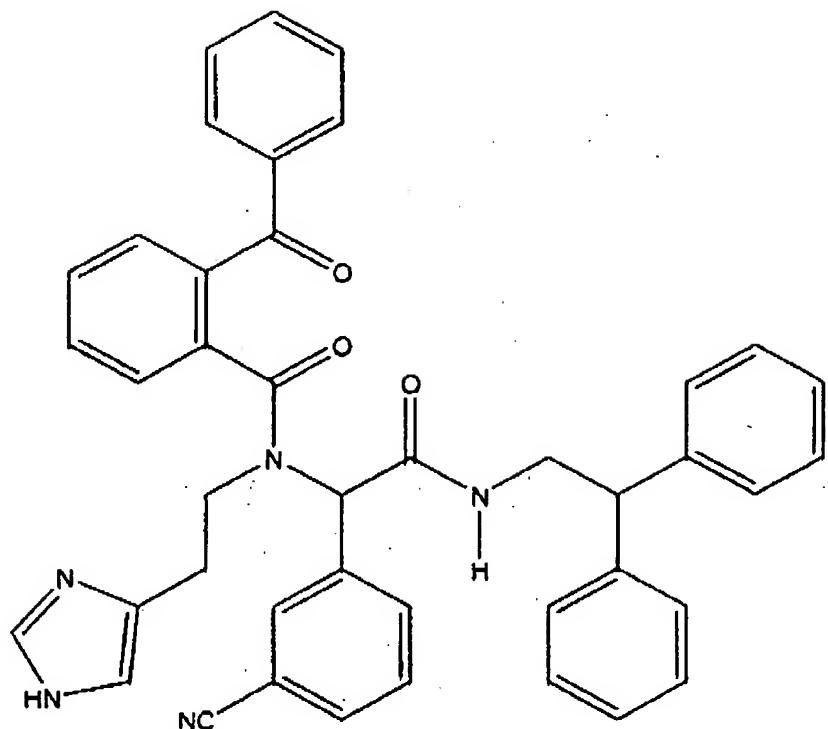
R' is hydrogen, an alkyl group, phenyl, -O(Ph), CH<sub>2</sub>(Ph), heteroaryl or non-aromatic heterocyclic ring;

each R is independently an alkyl, benzyl, or aryl group; or -N(R)<sub>2</sub>, taken together, can also form a non-aromatic heterocyclic group; and

k is 0, 1 or 2.

21. (New) A method of inhibiting rejection of a transplanted organ, tissue or cell in a recipient mammal, the method comprising the step of administering to the recipient mammal an effective amount of rapamycin and an effective amount of a compound represented by the following structural formula:

-13-



or a pharmaceutically acceptable salt of the compound.

22. (New) The method of Claim 21 wherein the transplanted organ, tissue or cell is a transplanted heart, kidney, lung, liver, pancreas, skin or bone marrow.
23. (New) A composition comprising rapamycin and a compound represented by the following structural formula: